



**United States
Department of
Agriculture**

**Agricultural
Marketing
Service**

**Fruit and
Vegetable
Division**

**Fresh
Products
Branch**

United States Standards for Grades of Tangerines

Effective September 18, 1948
(Reprinted - January 1997)

United States Standards for Grades of Tangerines ¹

General

51.1770 General.

Grades

51.1771 U.S. Fancy.

51.1772 U.S. No. 1.

51.1773 U.S. No. 1 Bronze.

51.1774 U.S. No. 2.

51.1775 U.S. No. 2 Russet.

51.1776 U.S. No. 3.

Tolerances

51.1777 Tolerances.

51.1778 U.S. Fancy; U.S. No. 1; U.S. No. 1
Bronze; U.S. No. 2 and U.S. No. 2 Russet.

51.1779 U.S. No. 3.

Standard Pack

51.1780 Standard pack.

Definitions

51.1781 Firm.

51.1782 Well formed.

51.1783 Damage.

51.1784 Highly colored.

51.1785 Discoloration.

51.1786 Fairly well colored.

51.1787 Bronzed russetting.

51.1788 Fairly firm.

51.1789 Fairly well formed.

51.1790 Serious damage.

51.1791 Reasonably well colored.

51.1792 Very serious damage.

51.1793 Cull.

General

§51.1770 General.

(a) The tolerances for the standards are on a container basis. However, individual packages in any lot may vary from the specified tolerances as stated below, provided the averages for the entire lot, based on sample inspection, are within the tolerances specified.

¹Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act or with applicable State or laws and regulations.

(b) For packages which contain more than 10 pounds and a tolerance of 10 percent or more is provided, individual packages in any lot shall have not more than one and one-half times the tolerance specified. For packages which contain more than 10 pounds and a tolerance of less than 10 percent is provided, individual packages in any lot shall have not more than double the tolerance specified except that at least one decayed or very seriously damaged fruit may be permitted in any package.

(c) For packages which contain 10 pounds or less, individual packages in any lot are not restricted as to the percentage of defects except that not more than one fruit which is decayed or very seriously damaged shall be allowed in any package.

Grades

§51.1771 U.S. Fancy.

U.S. Fancy shall consist of tangerines which are mature, firm, and well-formed; free from soft bruises, bird pecks, unhealed skin-breaks, and decay; free from damage by ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scale, sprouting, sprayburn, sunburn, unsightly discoloration, buckskin, melanose, scars, scab, dirt or other foreign materials, disease, insects, mechanical or other means.

(a) Each fruit in this grade shall be highly colored.

(b) In this grade not more than 1/10 of the surface in the aggregate of each fruit may have a light shade of brown discoloration caused by rust mite, or an equivalent in appearance to this amount when the fruit is discolored by any cause (See §51.1778.)

§51.1772 U.S. No. 1.

U.S. No. 1 shall consist of tangerines which are mature, firm and well-formed; free from soft bruises, bird pecks, unhealed skin-breaks, and decay; free from damage by ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scale, sprouting, sprayburn, sunburn, unsightly discoloration, buckskin, melanose, scars, scab, dirt or other foreign materials, disease, insects, mechanical or other means.

(a) Each fruit of this grade shall be fairly well colored.

(b) In this grade not more than one-third of the surface in the aggregate of each fruit may have a light shade of brown discoloration caused by rust mite, or an equivalent in appearance to this amount when the fruit is discolored by any cause. (See §51.1778.)

§51.1773 U.S. No. 1 Bronze.

The requirements for this grade are the same as for U.S. No. 1 except for discoloration. In this grade at least 75 percent, by count, of the fruit shall show some discoloration, and more than 20 percent, by count, of the fruit shall have more than one-third of the surface of each fruit affected with bronzed russeting: **Provided**, That no discoloration that exceeds the amount allowed in the U.S. No. 1 grade shall be permitted unless such discoloration is caused by thrip or wind scars, or rust mite. (See §51.1778.)

§51.1774 U.S. No. 2.

U.S. No. 2 shall consist of tangerines which are mature, fairly firm, and fairly well-formed; free from soft bruises, bird pecks, unhealed skin-breaks and decay; free from serious damage by ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scale, sprouting, sprayburn, sunburn, unsightly discoloration, buckskin, melanose, scars, scab, dirt or other foreign materials, disease, insects, mechanical or other means.

- (a) Each fruit of this grade shall be reasonably well colored.
- (b) In this grade not more than two-thirds of the surface in the aggregate of each fruit may be affected with light brown discoloration, or may have the equivalent to this amount in appearance when the fruit has lighter or darker shades of discoloration. (See §51.1778.)

§51.1775 U.S. No. 2 Russet.

The requirements for this grade are the same as for U.S. No. 2 except that more than 20 percent, by count, of the fruits shall have in excess of two-thirds of the surface in the aggregate affected with light brown discoloration. (See §51.1778.)

§51.1776 U.S. No. 3.

U.S. No. 3 shall consist of tangerines which are mature, not flabby, and not seriously lumpy; which are free from unhealed bird pecks, unhealed skin-breaks and decay; free from very serious damage by bruises, ammoniation, creasing, dryness or mushy condition, pitting, scale, sprouting, sprayburn, sunburn, unsightly discoloration, melanose, scars, scab, dirt or other foreign materials, disease, insects, mechanical or other means. (See §51.1779.)

Tolerances

§51.1777 Tolerances.

In order to allow for variations incident to proper grading and handling in each of the foregoing grades, the tolerances set forth in §§51.1778 and 51.1779 are provided as specified.

§51.1778 U.S. Fancy; U.S. No. 1; U.S. No. 1 Bronze; U.S. No. 2 and U.S. No. 2 Russet.

Not more than a total of 10 percent, by count, of the fruit in any container may be below the requirements of the grade other than for discoloration but not more than 5 percent shall be allowed for very serious damage other than by dryness or mushy condition and not more than one-half of 1 percent shall be allowed for decay at shipping point: **Provided**, That a total tolerance of not more than 3 percent shall be allowed for decay enroute or at destination. In addition, not more than a total of 10 percent, by count, of the fruit in any container may not meet the requirements relating to discoloration but not more than 2 percent shall be allowed for serious damage by unsightly discoloration.

§51.1779 U.S. No. 3.

Not more than a total of 15 percent, by count, of the fruit in any container may be below the requirements of this grade but not more than 5 percent shall be allowed for defects other than dryness or mushy condition, and not more than 1 percent shall be allowed for decay at shipping point: **Provided**, That a total tolerance of not more than 3 percent shall be allowed for decay enroute or at destination.

Standard Pack

§51.1780 Standard pack.

(a) The tangerines in each container shall be packed in accordance with recognized methods. Each container shall be well filled and properly marked to indicate the size of the fruit. When the figures used to indicate size of the fruit vary from the actual number of tangerines in the container, as in the case of fractional parts of boxes, the figures indicating size shall be followed by the letter "s" or the word "size," as, for example, "210s," or "210 size." Containers which are not so marked shall not be regarded as meeting requirements of "standard pack."

(b) Fruit in each container shall be of a size not less than the minimum diameters specified below for the various packs. Packs other than those listed shall have a minimum size not less than that

specified for the nearest count.

Pack	Diameter in Inches	Minimum
100.....	2-15/16	
120.....	2-11/16	
150.....	2-8/16	
176.....	2-6/16	
210.....	2-4/16	
246.....	2-2/16	
294.....	2	

(c) In order to allow for variations incident to proper sizing, not more than 10 percent, by count, of the fruit in any container may be below the minimum size for the count as specified above.

Definitions

§51.1781 Firm.

"Firm" means that the flesh is not soft and the fruit is not badly puffy, and that the skin has not become materially separated from the flesh of the tangerine.

§51.1782 Well formed.

"Well formed" means that the fruit has the characteristic tangerine shape and is not deformed.

§51.1783 Damage.

"Damage" means any defect or blemish which more than slightly affects the appearance, or edible or shipping quality of the fruit. Any one of the following defects, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as damage:

- (a) Ammoniation, when not occurring as speck-type similar to melanose: **Provided**, That no ammoniation shall be permitted that detracts from the appearance of the individual fruit to a greater extent than the amount of discoloration allowed for the grade.
- (b) Creasing, when it materially affects the appearance or shipping quality of the fruit.
- (c) Dryness or mushy condition, when mushy or distinctly dry to a depth of more than one-eighth inch in all segments at the stem end, or the equivalent of this amount, by volume, of mushy condition or dryness when occurring in any portion of the fruit.
- (d) Green spots or oil spots, when the appearance is affected to a greater extent than 10 green spots caused by scale, each of which is approximately one-eighth inch in diameter.
- (e) Pitting, when materially affecting the appearance or shipping quality of the individual fruit.
- (f) Scale, when occurring as a blotch which averages more than three-eighths inch in diameter or any scale that detracts from the appearance of the individual fruit to a greater extent than a three-eighths inch blotch. "Blotch" refers to actual scale and not the discolored area caused by scale.
- (g) Sprayburn, when causing the skin to become hard or when it materially affects the appearance of the fruit.
- (h) Sunburn, when causing the skin to become hard or when it materially affects the appearance of the fruit.
- (i) Unsightly discoloration, when the color or the pattern, or a combination of color and pattern,

causes the fruit to have an unattractive appearance.

(j) Buckskin, when it detracts from the appearance of the fruit to a greater extent than the amount of discoloration allowed for the grade.

(k) Melanose, when not small smooth speck-type, or any speck-type that detracts from the appearance of the fruit to a greater extent than the amount of discoloration allowed in the grade. Melanose that exceeds the amount allowed in the U.S. No. 1 grade is not permitted in the U.S. No. 1 Bronze grade.

(l) Scars, when not smooth, or when causing any noticeable depression or when detracting from the appearance of the fruit to a greater extent than the amount of discoloration allowed for the grade.

(m) Scab, when not smooth, or when it affects shape or when it detracts from the appearance of the fruit to a greater extent than the amount of discoloration allowed for the grade. Scab injury that exceeds the amount allowed in the U.S. No. 1 grade is not permitted in the U.S. No. 1 Bronze grade.

§51.1784 Highly colored.

"Highly colored" means that the ground color of each fruit is a deep tangerine color with practically no trace of yellow color.

§51.1785 Discoloration.

"Discoloration" includes discoloration caused by rust mite, melanose, scars, scab, or any other means. Shades of discoloration which blend with the ground color of the fruit may be allowed on a larger area than that specified in the grade for light brown discoloration, and shades of discoloration which are more in contrast with the ground color shall be restricted to a lesser area, provided no discoloration may affect the appearance to a greater extent than the amount of light brown discoloration specified for the grade. Tangerines which show discoloration caused by melanose, scab, or any cause other than by thrip, or wind scars, or by rust mite shall not be permitted in the U.S. No. 1 Bronze grade when such discoloration exceeds the amount allowed in the U.S. No. 1 grade. (See §51.1787.)

§51.1786 Fairly well colored.

"Fairly well colored" means that each fruit may have not over one inch of green color in the aggregate and the remainder of the surface shall show a good tangerine color with some portion of the surface showing a reddish tangerine blush.

§51.1787 Bronzed russetting.

"Bronzed russetting" means russetting caused by thrip, or wind scars, or by rust mite or similar russetting which is not readily distinguishable from that caused by rust mite. Discolorations caused by melanose, scab, etc., are not considered as "bronzed russetting" within the meaning of these standards but are regarded as defects when they exceed the amounts permitted in the U.S. No. 1 grade and are not permitted in the U.S. No. 1 Bronze grade.

§51.1788 Fairly firm.

"Fairly firm" means that the flesh may be slightly soft but is not bruised or badly puffy, and that the skin has not become seriously separated from the flesh of the tangerine.

§51.1789 Fairly well formed.

"Fairly well formed" means that the fruit may not have the shape characteristic of the variety but that it is not badly deformed.

§51.1790 Serious damage.

"Serious damage" means any defect or blemish which seriously affects the appearance, or edible or shipping quality of the fruit. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage:

- (a) Ammoniation, when scars are cracked, or dark and aggregating more than one-half inch in diameter or when light-colored and aggregating more than 1 inch in diameter.
- (b) Creasing, when it causes the skin to be seriously weakened.
- (c) Dryness or mushy condition, when mushy or distinctly dry to a depth of more than one-quarter inch in all segments at the stem end, or the equivalent of this amount, by volume, of mushy condition or dryness when occurring in any portion of the fruit.
- (d) Green spots or oil spots, when the appearance is affected to a greater extent than 25 green spots, caused by scale, each of which is approximately one-eighth inch in diameter.
- (e) Pitting, when seriously affecting the appearance or shipping quality of the fruit.
- (f) Scale, when occurring as a blotch which averages more than one-half inch in diameter, or any scale that detracts from the appearance of the fruit to a greater extent than a one-half inch blotch. "Blotch" refers to actual scale and not the discoloration caused by scale.
- (g) Sprayburn, when it has caused the skin to become hard, or when it seriously affects the appearance of the fruit.
- (h) Sunburn, when it has caused the skin to become hard, or when it seriously affects the appearance of the fruit.
- (i) Unsightly discoloration, when the color or the pattern, or a combination of both, causes the fruit to have a distinctly unattractive appearance.
- (j) Buckskin, when it detracts from the appearance of the fruit to a greater extent than the amount of discoloration allowed for the grade.
- (k) Melanose, when badly caked and aggregating more than 1/2 inch in diameter or when lightly caked and aggregating more than 1 inch in diameter, or when unsightly or when it detracts from the appearance of the fruit to a greater extent than the amount of discoloration allowed for the grade.
- (l) Scars, when not fairly smooth, or when causing any materially depressed areas, or when detracting from the appearance to a greater extent than the amount of discoloration allowed for the grade. Scars which are not fairly smooth, or which are materially depressed, are not permitted in either U.S. No. 2 or U.S. No. 2 Russet grades.
- (m) Scab, when not fairly smooth, or when it materially affects the shape of the fruit, or when it detracts from the appearance to a greater extent than the maximum amount of discoloration allowed for the grade.

§51.1791 Reasonably well colored.

"Reasonably well colored" means that a good yellow or reddish tangerine color shall predominate over the green color on at least one-half of the fruit surface in the aggregate, and that each fruit shall show practically no lemon color.

§51.1792 Very serious damage.

"Very serious damage" means any defect or blemish which very seriously affects the appearance, or edible or shipping quality of the fruit. Any one of the following defects, or any combination of

defects, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as very serious damage:

- (a) Ammoniation, when scars are badly cracked, or when dark and aggregating more than 1 inch in diameter, or when light-colored and detracting from the appearance of the fruit to a greater extent than 1 inch of dark ammoniation.
- (b) Creasing, when causing the skin to be seriously weakened.
- (c) Dryness or mushy condition, when mushy or distinctly dry to a depth of more than one-quarter inch in all segments at the stem end or the equivalent of this amount, by volume, of mushy condition or dryness when occurring in any portion of the fruit.
- (d) Pitting, when it very seriously affects the appearance or the shipping quality of the fruit.
- (e) Scale, when it very seriously affects the appearance of the fruit.
- (f) Sprayburn, when it very seriously affects the appearance of the fruit.
- (g) Sunburn, when it very seriously affects the appearance of the fruit.
- (h) Unsightly discoloration, when the fruit has a very objectionable appearance caused by any means. The color or the pattern of the discoloration, or a combination of both, or a combination of defects may cause the fruit to have a very unsightly appearance.
- (i) Melanose, when caked to the extent that the appearance of the fruit is very seriously affected.
- (j) Scars, when so deep, rough, or so unsightly that the appearance of the fruit is very seriously injured.

§51.1793 Cull.

A cull is a fruit which does not meet the requirements of U.S. No. 3 grade.